Inventor: LI et al.
Docket No.: 14184.0005USWO
Title: AN ORGANIC EXTRACT OF GEUM JAPONICUM THUMB VARIANT AND USE
THEREOF

Attorney Name: Mark T. Skoog Phone No.: 612-371-5240

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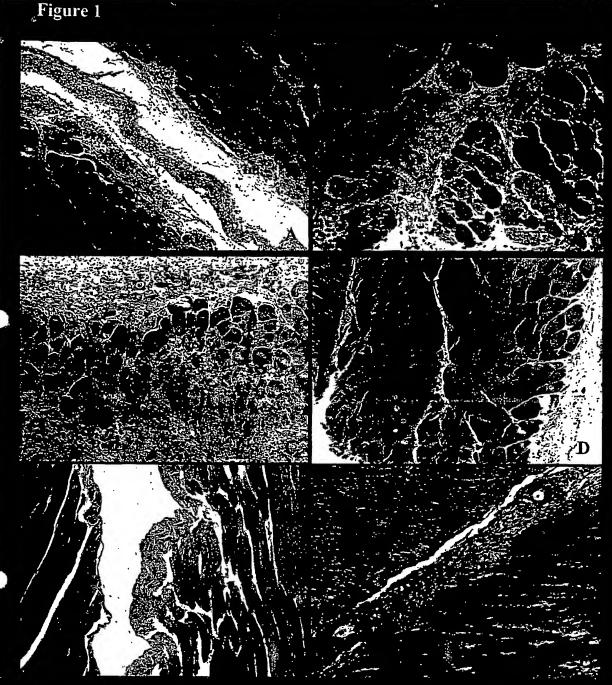


Fig. 1 The appearance of strain injured rabbit tibialis anterior following treatment with EGJV. The wound site was filled with a lot of inflammatory cells (A) and some newly formed blood vessels with a few newly regenerated myotubes were also found in the wound site on day 1 (B). Many newly formed blood vessels were observed in the wound site and some newly regenerated myotubes were also formed (C) 2 days after the muscle injury. In contrast, the wound site was still fresh and there were almost no infiltration of inflammatory cells in DMSO control group (E). Many newly regenerated and relatively matured myotubes sized a bit smaller than normal myofibers—with central nuclei-were observed in the gap of wound on day 18 in EGJV treated group (D). In contrast, the gap of wound in control was filled with fibrous tissue (F).

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Fig. 2: The appearance of strain injured rat tibialis anterior following treatment with EGJV for 1, 2 and 3 days. a, The wound site was filled with a lot of inflammatory cells (Inf) in 5% DMSO control on day 2. N indicates the appearance of normal muscle fibers. In contrast, in EGJV treated group, many newly formed blood vessels were observed in the wound site (indicated by black arrows) 1 day after the muscle injury (b); in addition to many newly formed vessels indicated by black arrows and along the newly formed blood vessels many newly regenerated and elongated thin myotubes (indicated by green arrows) were observed on day two (c); many more newly regenerated myotube clusters as surrounded by green arrows were observed on day 3 (d).

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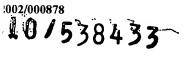
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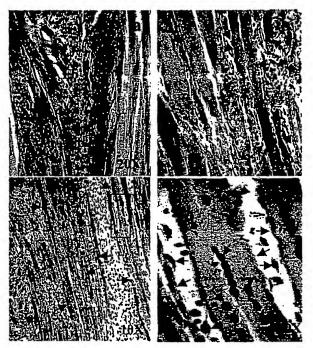


Fig. 3: The histological appearance of strain injured tibialis anterior following treatment with EGJV for 7 days. a, The wound site in control were full of inflammatory cells & fiberous tissues (Fb and Inf). b.c, In contrast, well-aligned & elongated newly regenerated myotubes (indicated by red arrows) were observed and they bridged the gaps of the wound sites in EGJV treated group. d, It is the amplified area in the blue rectangular in c. The red arrows indicate the newly regenerated myotubes, the green arrows indicate the central nuclei of the newly regenerated myotubes. The blue arrows suggest the activated satellite cells. Some of them were going to fuse with the myotubes.

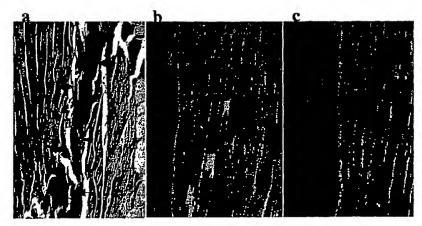


Fig. 4: The histological picture of strain injured tibialis anterior following treatment with EGJV for 14 days. a, The wound sites in control were healed with fibrosis (Fb) and the gaps of injuries were contracted (blue arrows). b,c, In contrast, well-aligned & elongated newly regenerated muscle fibers completely bridged the gaps of the wounds in EGIV treated group. Rm indicates the newly regenerated muscle fibers and Em shows the pre-existing muscle fibers. The contour of the cutting lines could still be recognized as indicated by arrows. The newly regenerated muscle fibers (less than two weeks old) are differently stained compared with the pre-existing muscle fibers probably due to the protein contents are still different in the two different aged cell groups.